



User's Manual moreBENCH LX

...the ultimate benchmarking tool

The 3D-Stereo professionals

Since its foundation in 2001 more3D is advancing towards being a competence centre for 3D-Stereo applications of all kinds. more3D is located close to the CGN airport just south of Cologne, Germany. The solutions are based on a patented software technology for the creation of stereo images independently of the 3D application used.

Patented Technology

This worldwide unique software technology allows e.g. the stereoscopic 3D-projection of 3D-applications and games in any size or its display on autostereoscopic monitors - without 3D glasses.

more3D licenses the more3D software for use in your own installations. Please feel free to talk to us about related software development ideas or - if you are a reseller - about becoming a more 3D partner in your region.

About more3D

- Founded in 2001
- Patented Technology
- Areas of Business:
 - Software for professional 3D stereo generation
 - 3D Realtime Content
 - Multiperspective programming for special displays

Dear user,

thanks for downloading (well, or for copying from a CD :) and installing the new universal more3D benchmarking tool "moreBENCH LX".

We have been leveraging our core 3D stereo generation technology that we use in our 3D stereo products to create this unique benchmark tool.

Meaning: with our professional stereo software, you can turn any 3D application that works well with the moreBENCH LX into passive 3D stereo, e.g. for a big screen stereo projection!

However, developing benchmarks is not our regular business, so please understand that this benchmark comes with NO SUPPORT or WARRANTY.

We are working on a full version that comes with many more cool features, so stay tuned or subscribe to the more3D newsletter on our web site.

Happy benchmarking!
Your more3D-Team!

moreBENCH LX

Key-Features:

- The new universal benchmarking tool
- Graphical visualizer
- Measures frames and polygons per second
- Toggle VSYNC at any time
- Controlpanel inside your 3D-application
- High performance, does not slow game play
- Pumped up full version coming out soon.

System Requirements

System requirements

The requirements for running moreBENCH LX are very low. It runs on any system meeting the requirements on the right.

It uses very little performance resources, so it won't slow down your application.

Hard and Software

- ATI Radeon or NVIDIA GeForce based graphics board
- Operating Systems:
 - Windows 2000
 - Windows XP Home
 - Windows XP Professional
- Direct3D^(tm) based full screen 3D application

Deinstallation

Of course we assume that you would never ever want to deinstall the moreBENCH LX. However, if you chose to do so, use the more3D uninstaller located in the directory where you installed the moreBENCH LX software.

How to benchmark your application!

Just make sure to start moreBENCH LX BEFORE you start your 3D application.

A small icon in the tray bar indicates when it is actively running in the background.

You may now start any Direct3D based application.

Software Installation

Follow these easy steps:

- 1 Insert the more3D CD or download the latest software version.
- 2 Unpack the content onto your hard drive
- 3 Run INSTALL.EXE from the location you copied the software to.
- 4 Follow the on-screen instructions.
- 5 Reboot your PC

This should install the more3D stereo software.

- 1 Now start moreBENCH by double clicking the desktop shortcut. A splashscreen will appear.
- 2 Run the more3DTest application in the installation directory

When you run the more3DTest application, you should see a spinning more3D logo and a more3D icon in the lower left corner of your screen (just like on page 6).

Activating moreBENCH LX

HOT KEYS

As soon as a 3D application has been started a small more3D logo will appear in the lower left corner of the screen.

It also tells which hotkeys you may press now. All default hotkey are located on the NUM-PAD:

NUM-Lock = Toggle **position** on screen
NUM * = **Show** moreBENCH panel
NUM / = Toggle **VSYNC** on/off

The on screen logo cannot be deactivated in the freeware version.

If it does not appear, the reasons are likely one or more of the following:

- The 3D software uses OpenGL
- The software does not run in full screen mode
- You have an incompatible graphics board.



more3DTest application with the moreBENCH logo in the lower left corner.

Using moreBENCH LX

Using moreBENCH LX

When you press the "NUM **" hot key the logo will expand to show the graphical visualizer. It consists of two sections:

- the white visualizer area
- a status line below

The **visualizer area** shows the selected value (fps or pps) over time. The color of the graph indicates:

- RED = VSYNC enabled
- BLACK = VSYNC disabled

The **status line** displays the following information:

- VSYNC LED (LED ON=VSYNC on)
- MIN = Minimum of selected value
- MAX = Maximum of selected value



more3DTest application with active fps-display.

Using moreBENCH LX

Using moreBENCH LX

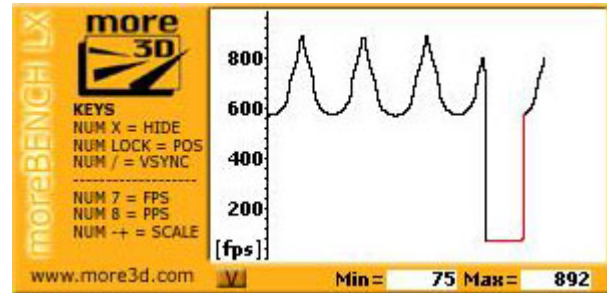
The hot keys for switching the values displayed in the visualizer area are:

NUM-Lock = Toggle **position** on screen
NUM * = **Hide** moreBENCH panel
NUM / = Toggle **VSYNC** (on/off)

NUM 7 = Display
Frames Per Second (FPS)
NUM 8 = Display
Polygons Per Second (PPS)
NUM + = Increase fps/pps range
NUM - = Decrease fps/pps range

Pressing NUM-7 or NUM-8 will **RESET** the Min and Max values in the status line and also rescale the graph to fit the current value range.

You can calculate the number of visible polygons in the scene by dividing the current pps value by the fps value. Or you obtain the full version which will display a Poygons per frame graph, too.



moreBENCH controlpanel showing the white visualizer area and the status line. The red part of the graph indicates, that VSYNC was enabled during this time, locking frame rate to 75 fps.

Q: Can I also test **OpenGL** applications?

A: No!

Q: I have a **great idea** for moreBENCH. What can I do?

A: Use the moreBENCH forum at our website: morebench.more3d.com and tell us about it.

Q: Can I use it for **other graphics chips**?

A: No, you will need either an NVIDIA GeForce or ATI Radeon based graphics board. Other boards MAY work, but you will have to try for yourself and there is no support from us.

Q: Can I **benchmark an conventional benchmark**?

A: Of course - if it is a Direct3D application like "3DMark" it will work just like any other 3D application.

Q: **Will my game run slower** when moreBENCH is enabled?

A: Very (!) little. We have optimized it so much that the effect is almost not measurable.

Enjoy your new universal benchmark tool
- moreBENCH LX!

Frequently asked questions

For more information go to:

- 🕒 Online discussion forum: **forum.more3d.com**
Exchange thoughts and ideas with other users.
- 🕒 The benchmark site: **morebench.more3d.com**
See if there is a new version or more features.



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Subscribe to the more3D news letter or
find more information and news at our
web site:

www.more3d.com

more3D also offers:

more3D StereoSoftware

A software that runs in the background unnoticed by your 3D application and turns it into true 3D stereo for stereo projection or VR HMD's.

Stereo video and image plug-ins

There are plug ins to show stereo movies and stereo images using the more3D-StereoSoftware.

Stereo projection rack

A unique aluminium frame rack to mount 2 projectors at screen height plus space for a pc, keyboard and mouse. Also looks stylish :)

Real time content

Interactive real time content for simulation and visualization. We are using the award winning and high performance StarForce engine to create photo realistic content.

And various 3D stereo accessories like passive 3D glasses, filter sets and more. Please visit www.more3d.com for more information.